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09/941,229	08/28/2001	Patrick J. McLampy	050115-1050	5275

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THOMAS, KAYDEN, HORSTEMEYER & RISLEY, LLP  
600 GALLERIA PARKWAY, S.E.  
STE 1500  
ATLANTA, GA 30339-5994

EXAMINER
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SHERKAT, AREZOO

ART UNIT	PAPER NUMBER
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2131

MAIL DATE	DELIVERY MODE
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01/17/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

Application No.

09/941,229

Applicant(s)

MELAMPY ET AL.

Examiner

Arezoo Sherkat

Art Unit

2131

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 21 November 2007.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 45-62, 67 and 70-73 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 67 and 70-73 is/are allowed.
- 6) ☒ Claim(s) 45-62 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

***Response to Amendment***

This office action is responsive to Applicant's amendment received on 11/21/2007. Claims 45-62, 67, and 70-73 are pending.

***Response to Arguments***

Applicant's arguments filed 11/21/2007 have been fully considered but they are not persuasive.

Applicant argues that Normile does not disclose "re-sequencing the series of multi-media data flow packets into a pseudo-random order" (Remarks, page 9).

Examiner respectfully disagrees and would like to point out that Normile does explicitly disclose in figure 7 and its related text in column 7, lines 64-67 and col. 8, lines 1-25. Specifically, Normile teaches that the encoding function is accomplished by combining the plaintext data with a sequence of random numbers generated by a Pseudo-random Number (PN) generator within the transmitter. The PN generator within the transmitter generates a unique Pseudo-random Number (PN) packet sequence of binary digits or numbers in response to a seed input. Each PN packet generated is at least as long as the longest plaintext data packet received from the source. The PN packets and plaintext data packets are combined preferably in an XOR gate. This combination produces ciphertext/re-sequenced packets.

Applicant further argues that Normile does not disclose transmitting each multi-media data flow packet in the re-sequenced order (Remarks, page 9).

Examiner responds that Normile discloses processing the received out-of-sequence encoded data packets in the receiver and providing improved efficiency in processing non-sequentially transmitted data packets (Abstract and col. 1, lines 25-31), wherein the receiver is able to process/decode the received ciphertext packet that is out of the sequence by matching it with a corresponding PN packet from the PN packet memory (col. 8, lines 26-51 and col. 10, lines 12-36).

***Claim Rejections - 35 USC § 112***

Due to the amendment of 11/21/2007, the outstanding rejection of claim 67 is withdrawn.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 45-49, 52-56, and 59 are rejected under 35 U.S.C. 102(b) as being anticipated by Normile et al., (U.S. Patent No. 5,541,995 and Normile hereinafter).

Regarding claims 45 and 52, Normile discloses a method of encrypting multi-media data flow packets, comprising the steps of:

receiving a series of multi-media data flow packets, each packet comprising a sequence number (i.e., the encoder of the transmitter receives the plaintext packet), storing the series of multi-media data flow packets in a jitter buffer, re-sequencing the series of multi-media data flow packets [into a pseudo-random order](col. 4, lines 29-67 and col. 5, lines 1-4 and col. 7, lines 64-67 and col. 8, lines 1-25); and transmitting each multi-media data flow packet in the re-sequenced series [in the re-sequenced order](i.e., wherein the receiver is able to process/decode the received ciphertext packet that is out of the sequence by matching it with a corresponding PN packet from the PN packet memory)(col. 5, lines 5-8 and col. 8, lines 26-51 and col. 10, lines 12-36).

Regarding claim 59, Normile discloses a system for encrypting multi-media data flow packets, comprising:

a transceiver (i.e., element 10), software stored within said first endpoint defining functions to be performed by the system (i.e., the encoding function generator 216 – see figure 2), and a processor configured by said software to perform the steps of: receiving a series of multi-media data flow packets (i.e., the encoder of the transmitter receives the plaintext packet), storing the series of multi-media data flow packets in a jitter buffer, re-sequencing the series of multi-media data flow packets [into a pseudo-random order]( col. 4, lines 29-67 and col. 5, lines 1-4 and col. 7, lines 64-67 and col. 8, lines 1-25); and transmitting each multi-media data flow packet in the re-sequenced series [in the re-sequenced order]( i.e., wherein the receiver is able to process/decode the received ciphertext packet that is out of the sequence by matching it with a

corresponding PN packet from the PN packet memory)(col. 5, lines 5-8 and col. 8, lines 26-51 and col. 10, lines 12-36).

Regarding claims 46 and 53, Normile discloses the method of claim 45, wherein said re-sequencing uses a randomization code that is algorithmically predictable if a key to said randomization code is known (col. 5, lines 12-19).

Regarding claims 47 and 54, Normile discloses the method of claim 45, further comprising the step of performing bit manipulation within said first multi-media data flow packet (i.e., the encoder preferably comprises a conventional exclusive-or gate)(col. 4, 55-67 and col. 5, lines 1-4).

Regarding claims 48 and 55, Normile discloses the method of claim 47, wherein said step of performing bit manipulation is performed by using a bit-size operation that is restorable (col. 5, lines 12-19).

Regarding claims 49 and 56, Normile discloses the method of claim 48, wherein said bit-size operation comprises negation (i.e., the encoder preferably comprises a conventional exclusive-or gate)(col. 5, lines 12-19).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 50-51, 57-58, and 61-62 are rejected under 35 U.S.C. 103(a) as being unpatentable over Normile et al., (U.S. Patent No. 5,541,995 and Normile hereinafter), Fink et al., (U.S. Patent No. 6,826,684 and Fink hereinafter).

Regarding claims 50-51, 57-58, and 61-62, Normile does not explicitly disclose the step of pseudo-randomly shuffling a destination address of each of the multi-media data flow packets.

However, Fink discloses the step of pseudo-randomly shuffling (i.e., encrypting using a encryption key) a destination address of each of the multi-media data flow packets (i.e., the ASD technique seamlessly layers with data security technologies such as IPSEC and Secure Socket Layer (SSL) because it only affects addressing and sequencing information for translation/restoration, allowing it to be used to enhance existing network security systems)(col. 7, lines 1-15 and col. 9, lines 13-65).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of applicant's invention to modify teachings of Normile with teachings of Fink because it would allow to include the step of pseudo-randomly shuffling a destination address of each of the multi-media data flow packets as disclosed by Fink. This

modification would have been obvious because one of ordinary skill in the art would have been motivated by the suggestion of Fink to XOR the unchanging block of each packet with a field that does change per packet to achieve more pseudo-random cryptographic effect (Fink, col. 9, lines 55-65).

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Arezoo Sherkat whose telephone number is (571) 272-3796. The examiner can normally be reached on 8:00-4:30 Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on (571) 272-3795. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

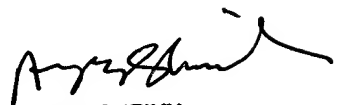


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/Arezoo Sherkat/  
Patent Examiner  
Group 2131  
Jan. 9, 2008

  
**AYAZ SHEIKH**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 2100**